# TA-F555ESI

### **SERVICE MANUAL**

US Model AEP Model



#### **SPECIFICATIONS**

#### **AUDIO POWER SPECIFICATIONS** POWER OUTPUT AND TOTAL HAR-MONIC DISTORTION:

With 6 ohm loads, both channels driven, from 20-20.000 Hz: rated 150 watts per channel minimum RMS power, with no more than 0.006% total harmonic distortion from 250 milliwatts to rated output.

With 8 ohm loads, both channels driven, from 20 - 20,000 Hz; rated 120 watts per channel minimum RMS power, with no more than 0.004% total harmonic distortion from 250 milliwatts to rated output.

#### Amplifier

Continuous RMS power output (both channels driven simultaneously)

150 W + 150 W (6  $\Omega$ , 20 Hz – 20 kHz, THD 0.006%) 120 W + 120 W  $(8 \Omega, 20 Hz - 20 kHz, THD 0.004 \%)$ 

Power bandwidth (IHF)

10 Hz - 100 kHz (6  $\Omega$  or 8  $\Omega$ , THD 0.02 %)

Dynamic headroom ('78 IHF)

1.5 dB (6 Ω)

1.2 dB (8 Ω)

Total harmonic distortion

0.004 % (6 Ω at 10 W output)

0.002 % (8 Ω at 10 W output) Intermodulation (IM) distortion, 60 Hz: 7 kHz = 4:1

0.006% (6  $\Omega$  at rated output)

0.004% (8  $\Omega$  at rated output)

Damping factor Slew rate

MICROFILM

125 (8 Ω, 1 kHz) 125 V/µsec 250 V/μsec

(inside)

Dynamic range

120 dB (TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))

Channel separation (at 1 kHz)

80 dB (PHONO MC) 95 dB (PHONO MM)

100 dB (TUNER, CD, TAPE 1, 2,

VIDEO 1, 2 (audio))

28 µV (network A) Residual noise Frequency response

RIAA equalization curve ± 0.2 dB (PHONO MM)

2 Hz - 200 kHz  $\frac{+0}{3}$  dB 2 Hz - 100 kHz  $\frac{+0}{3}$  dB (G-AEP model)

(TUNER, CD, TAPE 1, 2, VIDEO 1, 2 (audio))

Continued on page 2 -

#### **SAFETY RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY SHADING AND MARK M ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

# INTEGRATED STEREO AMPLIFIER SONY



### TA-F555ESII

Input sensitivity/impedance

 $0.17\,\mathrm{mV}$ ,  $40\,\Omega$ (PHONO MC, 3  $\Omega$ )

 $0.17 \, \text{mV}$ ,  $100 \, \Omega$ 

(PHONO MC, 40  $\Omega$ ) 2.5 mV,  $50 \text{ k}\Omega$ 

(PHONO MM)

150 mV, 50 kΩ (TUNER, CD, TAPE 1, 2,

VIDEO 1, 2 (audio))

Maximum input capability (1 kHz)

9 mV (PHONE MC)

150 mV (PHONO MM)

(1 kHz, THD 0.003 %) 73 dB\*, 70 dB (A) (PHONO MC)

83 dB\*, 87 dB (A) (PHONO MM) 102 dB\*, 97 dB (A) (TUNER,

CD, TAPE, 1, 2, VIDEO 1, 2

(audio))

Output voltage impedance

S/N (network)

\*78 IHF

Tone controls

150 mV, 1 k $\Omega$  (REC OUT 1, 2,

VIDEO 1 (audio))

25'mW (at 8 Ω)

Accepts low and high impedance

headphones. (HEADPHONES)

±8 dB (turnover freq. 300 Hz) (BASS, at 60 Hz)

±8 dB (turnover freq. 5 kHz)

(TREBLE, at 25 kHz)

BASS BOOST

+4 dB (at 50 Hz)

SUBSONIC filter

6 dB/octave attenuation below 15 Hz

Video

Input/output voltage 1 Vp-p

Input/output impedance

General

AC outlets

Dimensions

Weight

Preamplifier section: low-noise IC NF type System

equalizer amplifier

Power amplifier section: quasicomplementary SEPP OTL OCL power amplifier with all

stages direct coupled

AEP model: 220 V ac, 50/60 Hz Power requirements

US model: 120 V ac, 60 Hz

AEP model: 310 W Power consumption

US model: 290 W

AEP model: 1 switched, 100 W max.

US model: 2 switched, total 100 W max., 2 unswitched, total 100 W

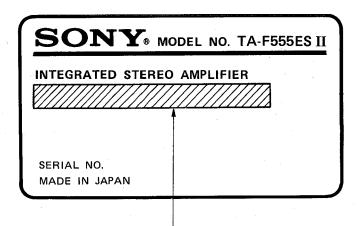
Approx.  $430 \times 135 \times 425 \text{ mm (w/h/d)}$ 

 $(17 \times 5^{3}/8 \times 16\% \text{ inches})$ 

including projecting parts and controls Approx. 15.1 kg (33 lbs 5 oz) net

MODEL IDENTIFICATION

- Specification Label -



US model: AC 120V ~ 60Hz 290W AEP model: AC 220V ~ 50/60Hz 310W

#### SAFETY CHECK-OUT (US Model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

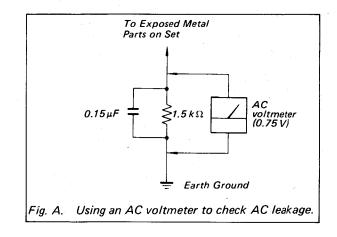
Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

#### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

- A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
- 2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



## SECTION 1 OUTLINE

#### 1-1. FEATURES

#### A.C.T. (AUDIO CURRENT TRANSFER) TECHNOLOGY

With A.C.T. technology, which reduces interference and noise as low as possible, the 4 signals of right and left channels of the pre-amp and power amp sections are separated, obtaining the best performance at the normal listening level. (In the TA-F555ESII, the exclusively developed audio super Hi-f<sub>T</sub> IC is employed.)

#### SUPER LEGATO LINEAR POWER AMPLIFIER STAGE

The operation of the power amplifier stage is stable without any observable distortion up through the higher frequencies. Because of its very low switching distortion, the output waveform is smooth.

#### **POWERFUL POWER SUPPLY**

Powerful transformers of 250 VA and 350 VA are respectively used in the power supply sections of the TA-F444ESII and TA-F555ESII to obtain rich sound. In addition, use of the ES filter together with the newly developed large chemical capacitor eliminates the power interference.

#### **SELECTED AUDIO PARTS**

A large heatsink and high-rigidity chassis are used to prevent thermal modulation distortion and vibration distortion, respectively. LC-OFC (Linear Crystal Oxionfree Copper) leads are used for internal wiring and speaker output coil. In addition, other audio parts are selected by frequent sound monitoring.

#### **VARIOUS VIDEO OPERATIONS**

This amplifier is equipped with 2 pairs of video jacks (one pair for playback/recording and one for playback) to allow you to perform various video operations.

#### SPEAKER PROTECTION CIRCUIT

When a short circuit or DC component is detected at the speaker outputs, the power/standby indicator blinks in red and the built-in speaker protection circuit functions to protect the speakers.

#### **MUTING CIRCUIT**

When the power is supplied, the power/standby indicator blinks in red and the muting circuit functions until the amplifier operation becomes stable.

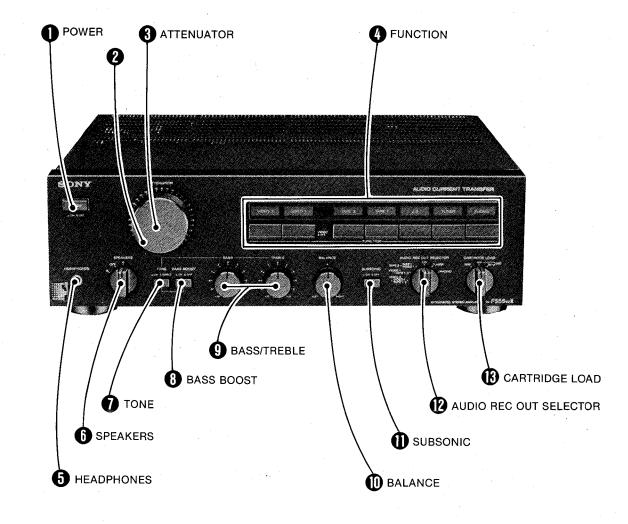
#### **CARTRIDGE SELECTOR**

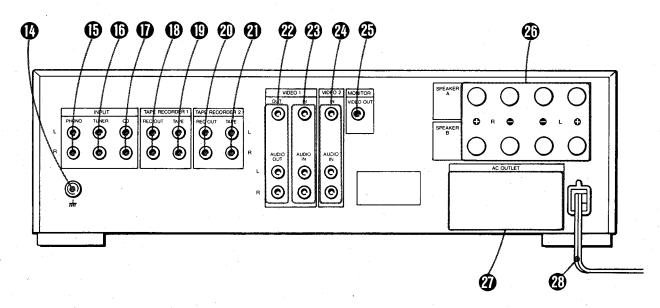
The high-gain equalizer amplifier stage accepts both MM (Moving-Magnet) and MC (Moving-Coil) cartridges.

#### **AUDIO REC OUT SELECTOR SWITCH**

With the AUDIO REC OUT SELECTOR switch, you can select the sound source to be recorded while listening to another audio source. This switch is also used to select tape (audio and video) dubbing and editing mode.

#### 1-2. FUNCTION OF CONTROLS





#### Front panel

#### • POWER switch

Turns the operating power on or off.

#### 2 Power/standby indicator

When the power is turned on, the muting circuit activates and the indicator blinks in red. The indicator then lights up in green indicating that the unit is now in standby.

The indicator will also blink in red when the protection circuit is activated.

#### ATTENUATOR knob

Regulates the overall sound level.

Turning the knob toward 0 increases the volume and turning it toward  $-\infty$  decreases the volume. Be sure to lower the volume whenever you turn the amplifier on or off.

#### FUNCTION buttons and indicators

Press to select the desired audio or video program source. Press another button to change the program. The indicator lamp above the pressed button will light up, indicating the program in use.

#### HEADPHONES jack

Accepts any low or high impedance stereo headphones.

For headphone monitoring only, set the SPEAKERS selector to OFF.

#### **6** SPEAKERS selector

Selects speaker system A or B.

#### **1** TONE switch

Depress this switch ( $\underline{\ }$  ON) when you adjust the tone controls or when you use the BASS BOOST switch. While you keep the switch released ( $\underline{\ }$  DIRECT), the tone control circuits are completely disconnected from the signal path and a flat frequency response is obtained.

#### BASS BOOST switch

Depress this switch ( $rac{a}$  ON) when you are driving a speaker system such as a small bookshelf type system, which has a weak bass response.

When the BASS BOOST switch is to be used, be sure to first depress the TONE switch (= ON).

#### BASS and TREBLE tone controls

These knobs control the prominence of bass and treble response. Clockwise rotation increases response; counterclockwise rotation decreases it. Adjust the tone to the acoustic condition of the listening room or to your preference.

When these tone controls are to be used, be sure to first depress the TONE switch ( $\bigcirc$  ON).

#### **® BALANCE control**

Governs the amount of sound coming from each paired speaker to get optimum stereo effect.

#### **10** SUBSONIC filter switch

If subsonic noise components created by warped records, etc. are present, the audible range frequencies may be modulated and cause irritating intermodulation distortion. In this case, depress the switch ( $\bigcirc$  ON) to reduce unwanted noise components in the program source. The filter will cut off any input signals below 15 Hz at a 6 dB-per-octave rate. Press the switch again to release it ( $\square$  OFF).

#### **12** AUDIO REC OUT SELECTOR switch

Permits you to select the desired program source you want to record.

For tape dubbing or video editing, set this switch to appropriate position.

#### ® CARTRIDGE LOAD selector

Before you play a record, be sure to set the selector as follows:

Moving-Magnet (MM) type cartridge

Set the CARTRIDGE LOAD selector to MM.

Moving-Coil (MC) type cartridge

 $40\,\Omega$  : for a cartridge with an impedance of 40 ohms or more.

 $3\,\Omega$ : for a cartridge with an impedance in the 3 to 40 ohms range.

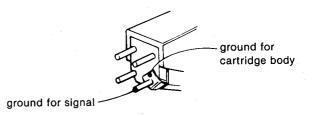
#### Rear panel

#### Ground terminal

To prevent hum, be sure to connect the ground wire of the turntable system to this ground terminal. If hum still exists, it may be helpful to connect the ground terminal directly to earth via a ground rod.

#### Note

In some particular MM cartridges, the ground for signal is connected to the ground for cartridge body. If this type of cartridge should be installed to a metal cartridge shell, current will flow through the tonearm ground in a loop and will cause hum noise. In this case, disconnect the turntable ground wire from the  $\frac{1}{100}$  terminal of the amplifier, or disconnect the ground for cartridge body from the ground for signal.



- ® PHONO inputs (phono jack)
- TUNER inputs (phono jack)
- (D) CD inputs (phono jack)
- TAPE RECORDER 1 REC OUT outputs (phono jack)
  Accept the inputs of a tape deck for recording.
- TAPE RECORDER 1 TAPE inputs (phono jack)
  Accept the line outputs of a tape deck for playback.
- TAPE RECORDER 2 REC OUT outputs (phono jack) Accept the inputs of a second tape deck for recording.
- TAPE RECORDER 2 TAPE inputs (phono jack) Accept the line outputs of a second tape deck for playback.
- @ VIDEO 1 OUT output and VIDEO 1 AUDIO OUT outputs (phono jack)

**VIDEO 1 OUT:** Accepts the video input of a video recorder.

**VIDEO 1 AUDIO OUT:** Accept the audio inputs of a video recorder.

VIDEO 1 IN input and VIDEO 1 AUDIO IN inputs (phono jack)

**VIDEO 1 IN:** Accepts the video output of a video recorder.

VIDEO 1 AUDIO IN: Accept the audio outputs of a video recorder.

② VIDEO 2 IN input and VIDEO 2 AUDIO IN inputs (phono jack)

VIDEO 2 IN: Accepts the video output of a TV tuner for multiple video source connection, a monaural video recorder or a second video recorder for video editing.

VIDEO 2 AUDIO IN: Accept the audio outputs of a TV tuner for multiple video source connection, a monaural video recorder or a second video recorder for video editing.

MONITOR VIDEO OUT output (phono jack) Accepts the input of a color monitor.

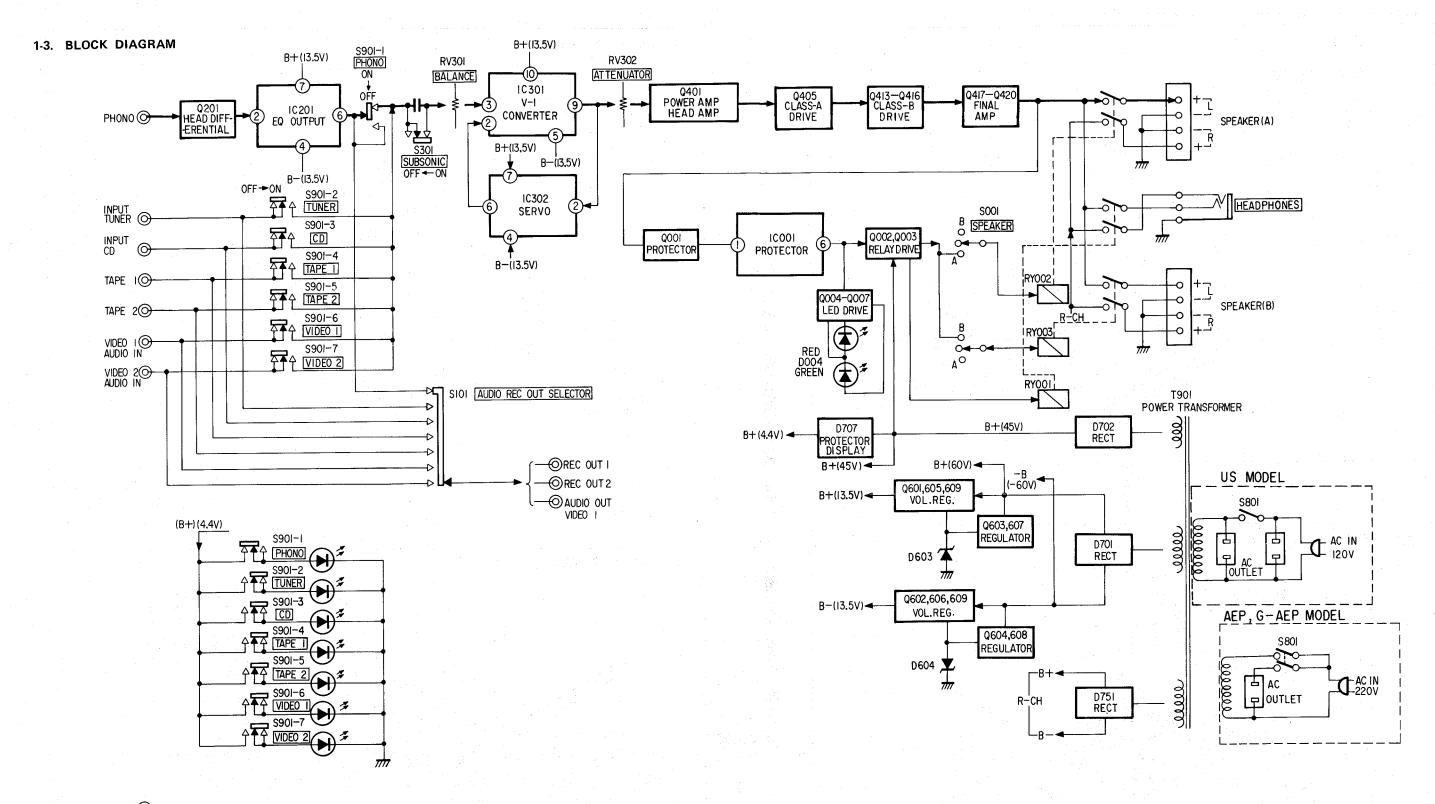
**3** SPEAKER A, B connectors

For connecting a speaker system or two pairs of speaker systems. System A and system B can be selected by means of the front panel SPEAKERS selector.

**@** AC OUTLETS

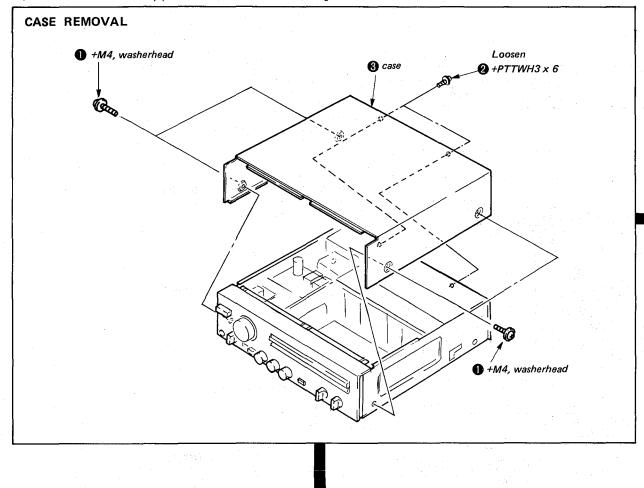
These are used to power other audio components whose power consumption is less than the wattage indicated on the ac outlet.

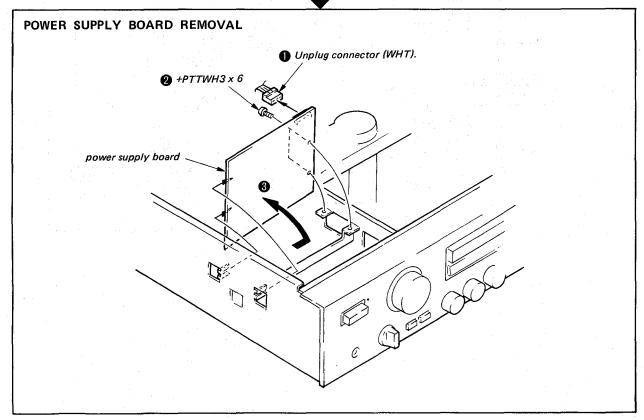
Power cord

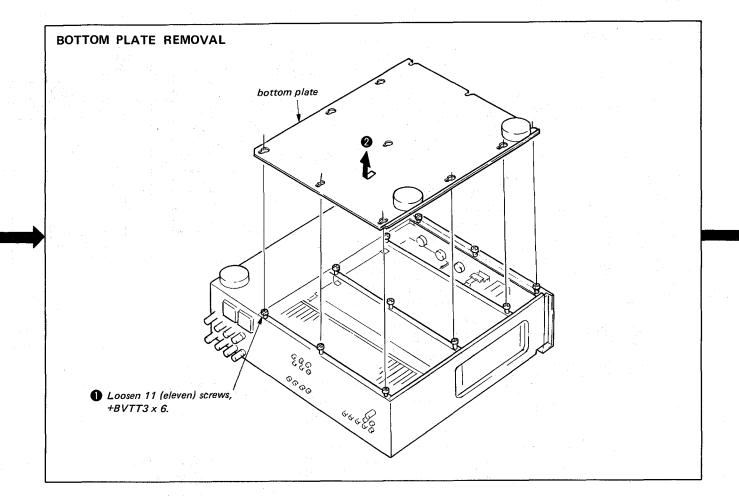


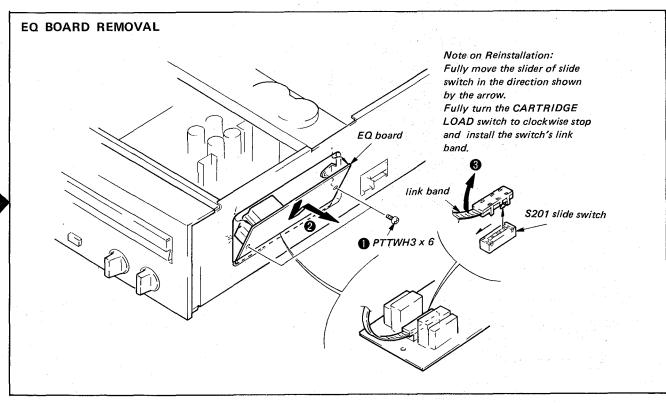
### SECTION 2 DISASSEMBLY

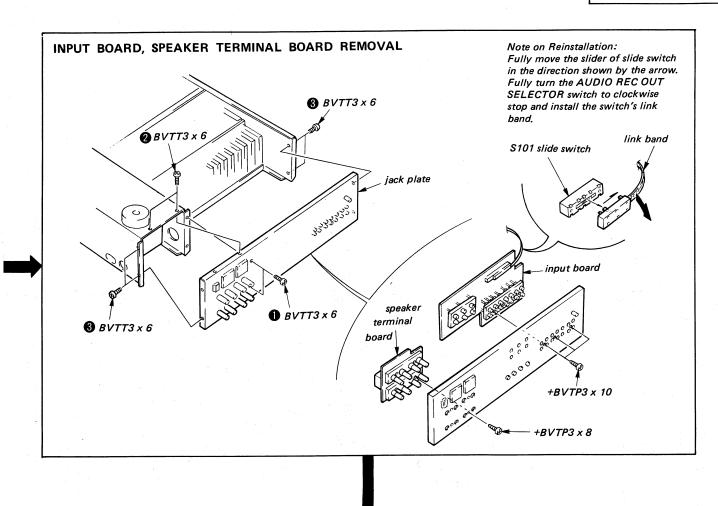
Note: Follow the disassembly procedure in the numerical order given.

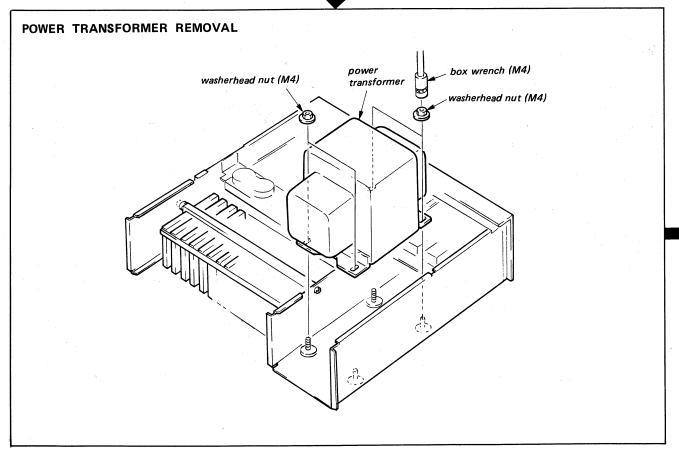


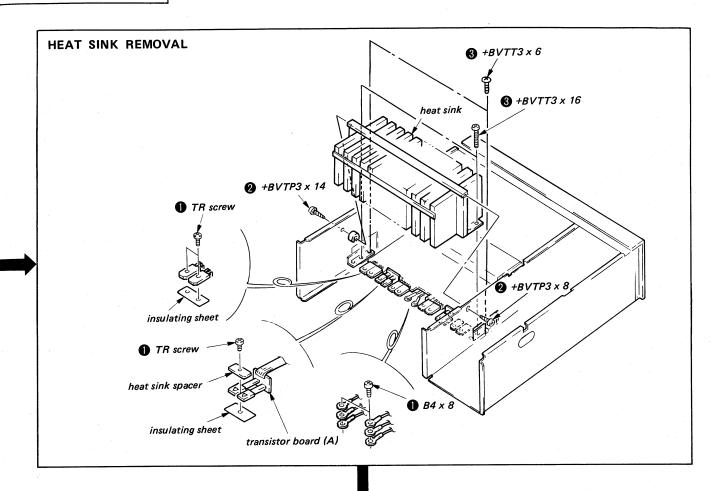


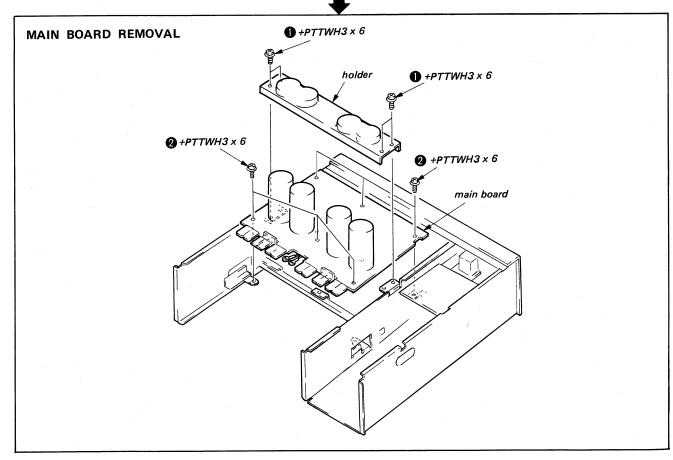






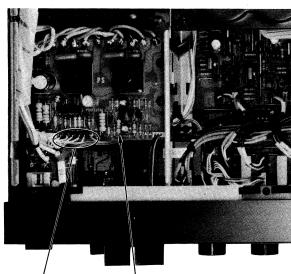






Precautions:

- 1. This unit requires about 20 30 minutes as a warming-up period to obtain a stable conditions before adjustments.
- 2. Unless otherwise specified, set the BALANCE, TREBLE and BASS controls/switch to their center click positions.
- 3. All the test points are located at the BIAS terminal on the power-supply board (centralized) as shown
- 4. Turn POWER off and fully discharge electricity from these high-capacity electrolitics as C711, C712, C761, C762 (10000µF), C607, C608, C657, C658 and C703 (1000 $\mu$ F) by using test cripleads before using soldering iron when replacing defective components. Otherwise, strong discharging from soldering iron may occur.



centralized test points power-supply board at BIAS terminal

#### DC Balance Adjustment to Power-Amplifier Section Setting:

ATTENUATOR swtich: Fully counterclockwise

(minimum)∞

FUNCTION switch: Other than PHONO

#### Procedure:

- 1. Connect the plus test lead of VOM to L (+) and minus test lead to chassis ground, terminal G.
- 2. Adjust RT401 (L-CH) so that VOM reads 0 ±30mV DC. Record the setting voltage value.
- 3. Connect the plus test lead of VOM to R (+) terminal and minus test lead to chassis ground, terminal G.
- 4. Adjust RT451 (R-CH) so that VOM reads 0 ±30mV DC. Record the setting voltage value.

#### DC Balance Adjustment to V-I Amplifier

#### Setting:

ATTENUATOR swtich: Slowly advance from mini-

mum position to 0dB

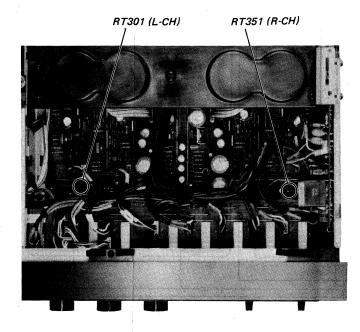
(maximum).

FUNCTION switch: Other than PHONO

#### Procedure:

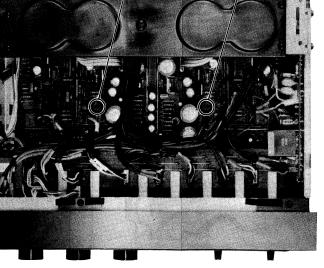
With VOM connected to the same test points as in the DC Balance Adjustment to Power-Amplifier Section, adjust RT301 (L-CH) and RT351 (R-CH) so that VOM reads the voltage value recorded in the adjustment to the power-amplifier section.

±5mV off settings from those voltages for the poweramplifier section are allowable.



RT451 (R-CH)





RT401 (L-CH)

#### **Idling Adjustment**

#### **Setting:**

ATTENUATOR switch: Fully cour

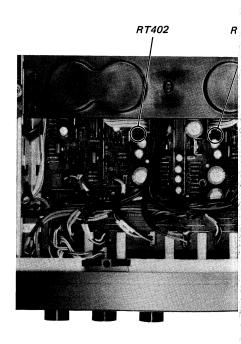
POWER switch: Turn off o the unit to

> temperatu turn it on a

(minimum

#### Procedure:

- 1. Connect VOM across the L (+) and 2. Turn POWER switch on. Observe V
- time passes.
- a) Immediately after turning or 2mV
- b) 23 seconds later and relay and the ATTENUATOR knob turned  $9 - 10 \, \text{mV}$
- c) 1 (one) minute later:  $14 15 \text{m}^3$ 3. Run the unit for about 20 - 30 1
- condition to make it stable. 4. Adjust RT402 (L-CH) so that VO
- ±2mV.
- 5. Connect VOM across the R (+) and and adjust RT452 (R-CH) so the 15mV ±2mV likewise.



**❸** +BVTT3 x 6

2 +BVTP3 x 14

transistor board (A)

**1** +PTTWH3 x 6

1 +PTTWH3 x 6

**1** +PTTWH3 x 6

main board

3 +BVTT3 x 16

#### to V-I Amplifier

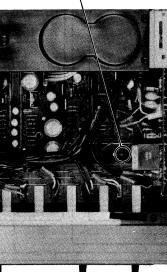
ch: Slowly advance from minimum position to 0dB (maximum).

Other than PHONO

to the same test points as justment to Power-Amplifier (L-CH) and RT351 (R-CH) are voltage value recorded in ower-amplifier section.

those voltages for the power-wable.





RT451 (R-CH)



#### **Idling Adjustment**

#### Setting:

ATTENUATOR switch: Fully counterclockwise

(minimum)∞

POWER switch:

Turn off once to cool off

the unit to ambient temperature, and then

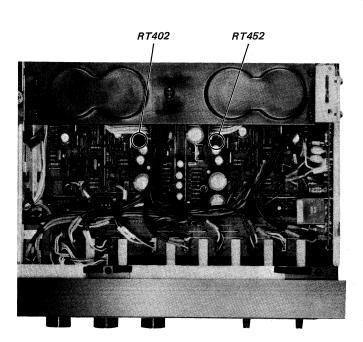
turn it on again.

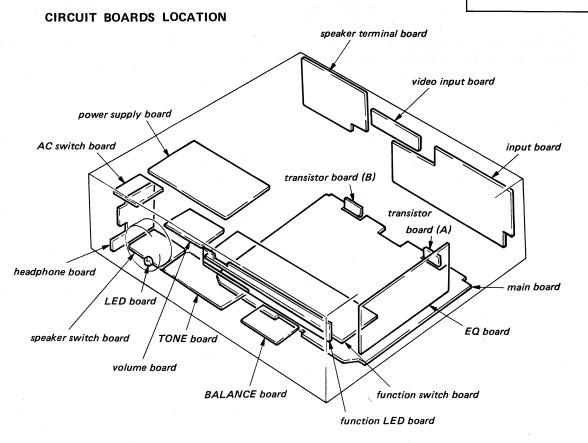
#### Procedure:

- 1. Connect VOM across the L (+) and (-) terminals.
- 2. Turn POWER switch on. Observe VOM reading as time passes.
  - a) Immediately after turning on the power: 2mV
  - b) 23 seconds later and relay and green lamp in the ATTENUATOR knob turned on:

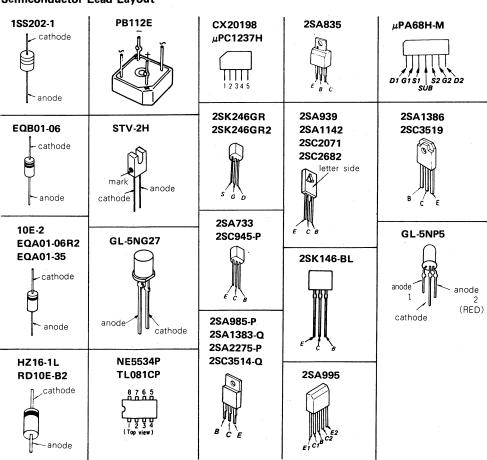
9 – 10mV

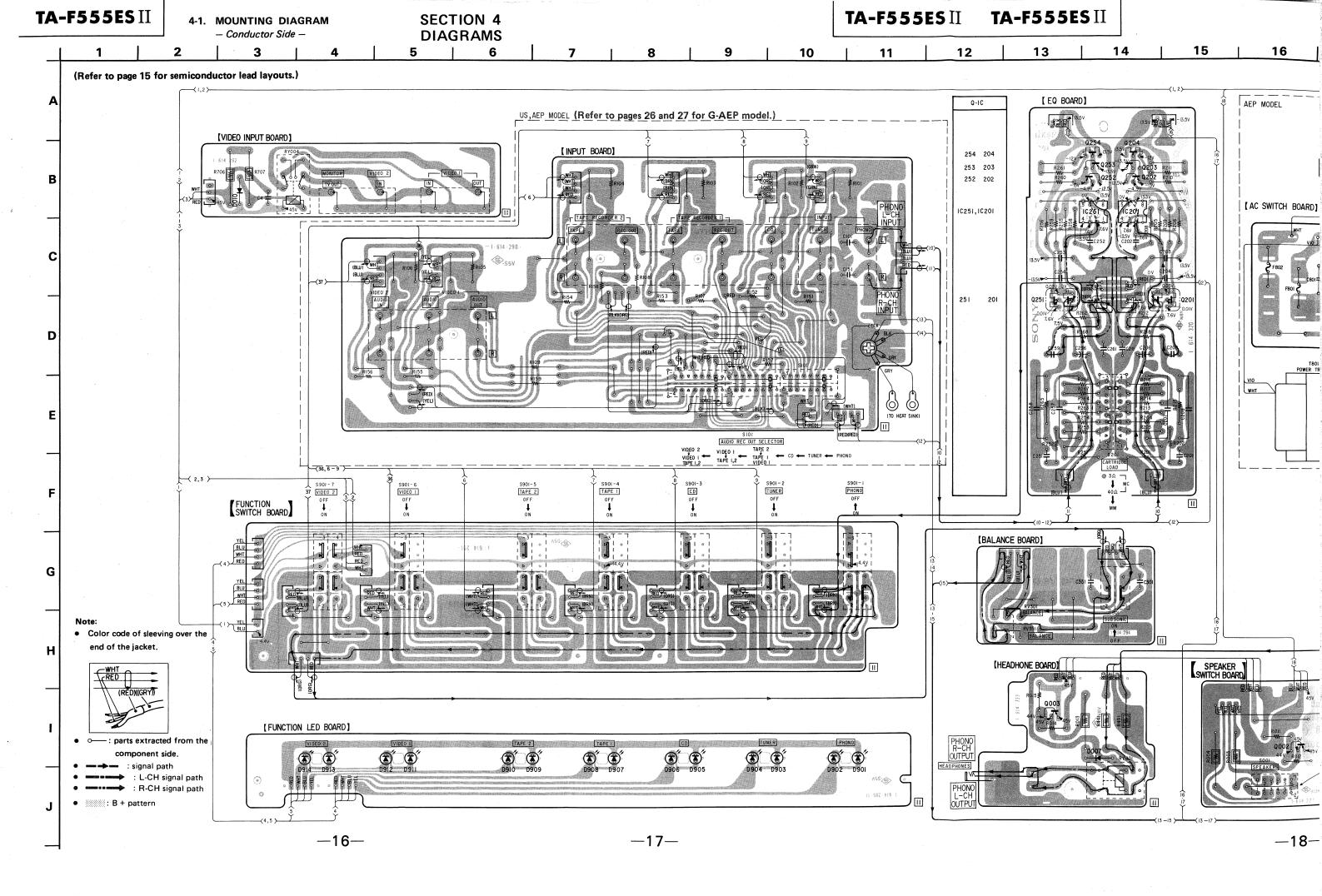
- c) 1 (one) minute later: 14 15 mV
- 3. Run the unit for about 20 30 minutes in this condition to make it stable.
- 4. Adjust RT402 (L-CH) so that VOM reads 15mV ±2mV.
- 5. Connect VOM across the R (+) and (-) terminals, and adjust RT452 (R-CH) so that VOM reads 15mV ±2mV likewise.

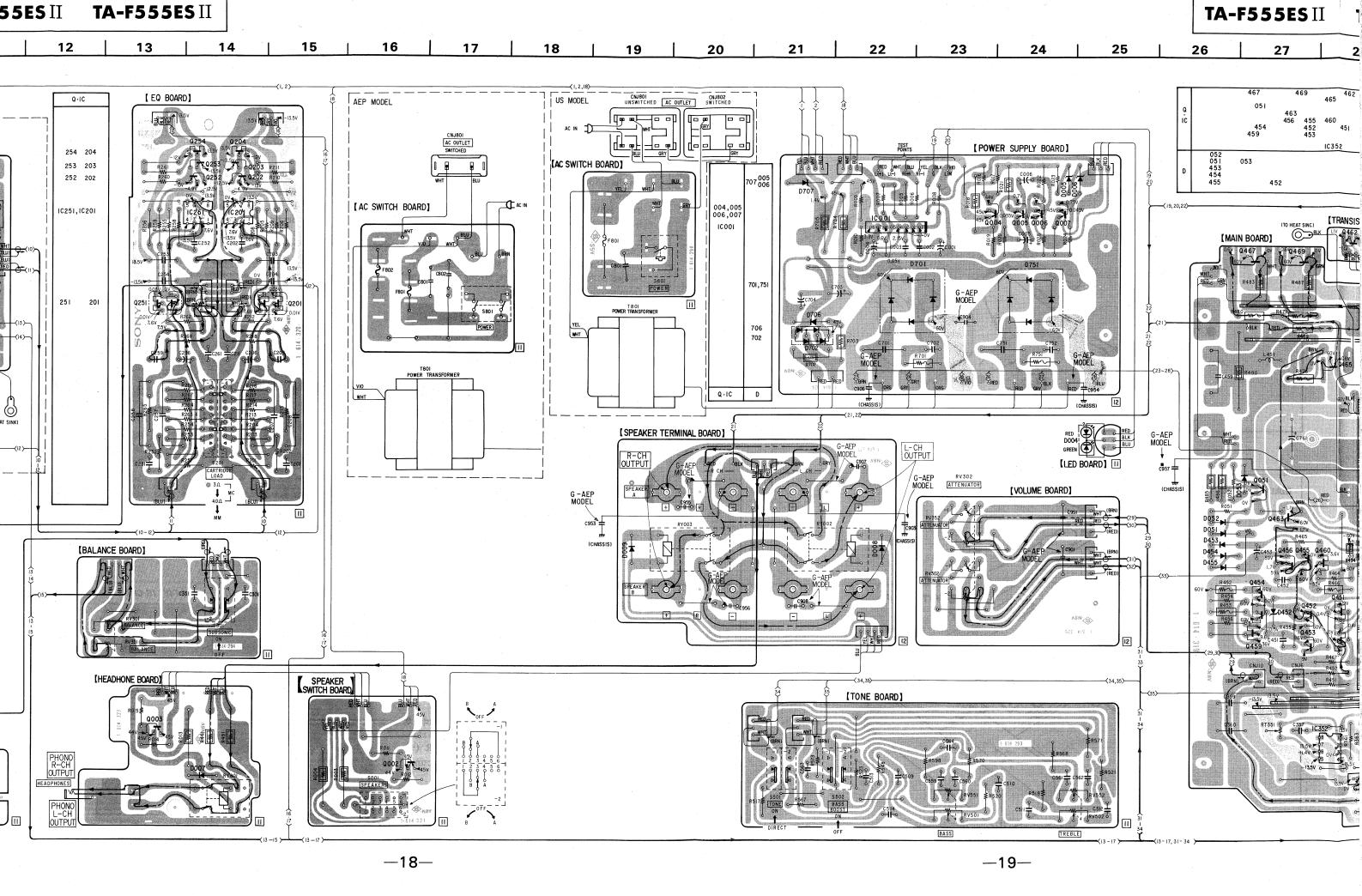


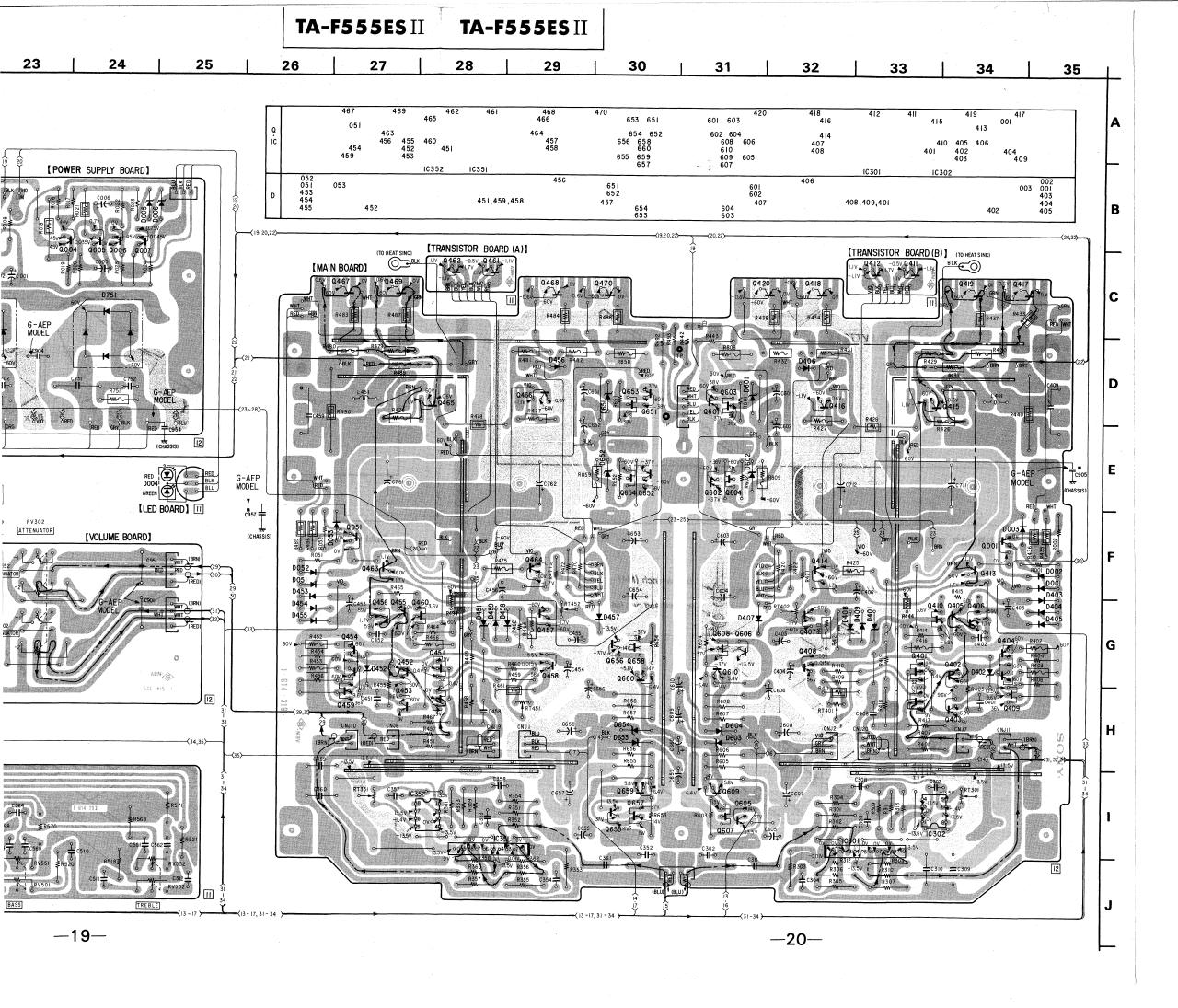


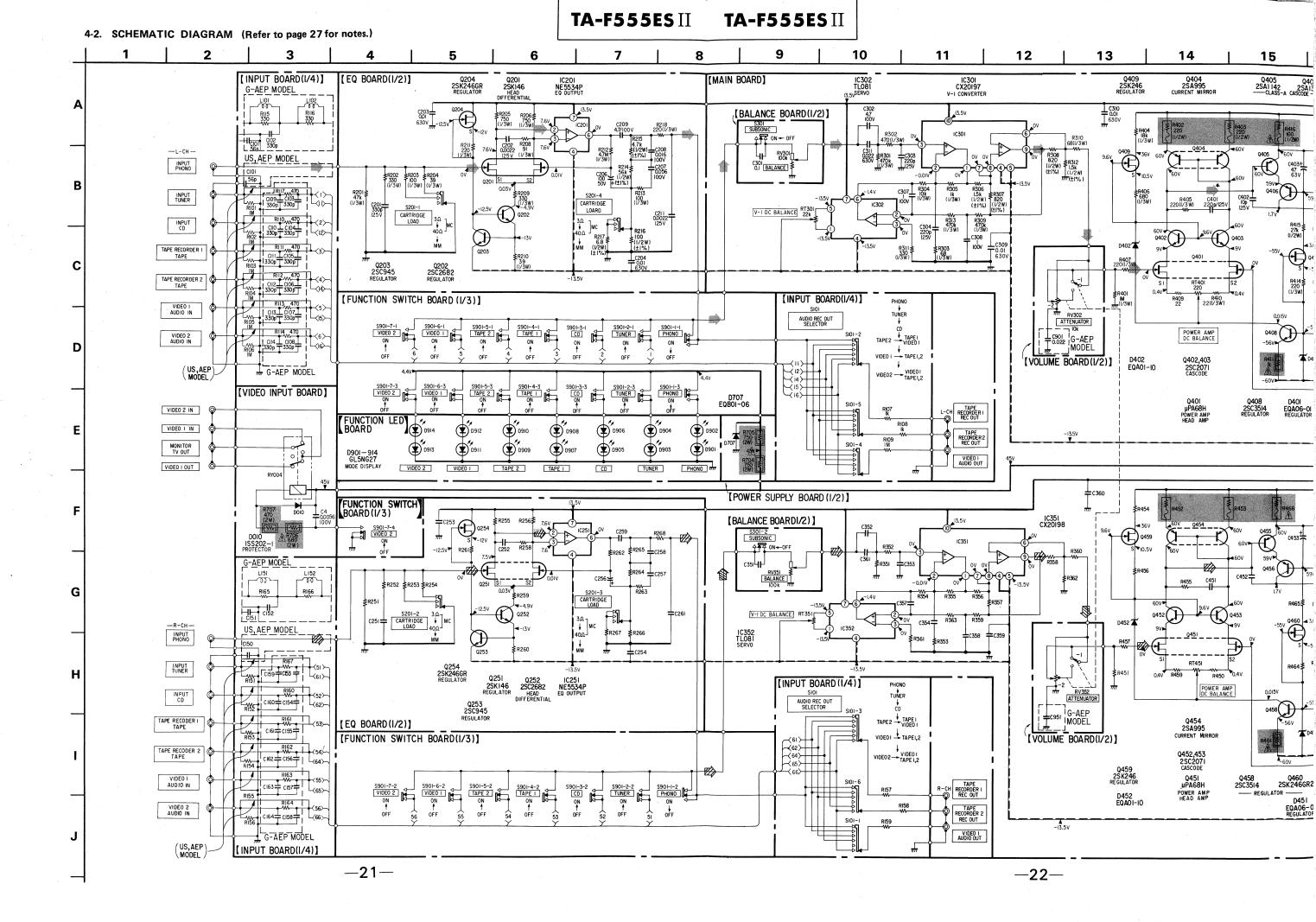
#### Semiconductor Lead Layout

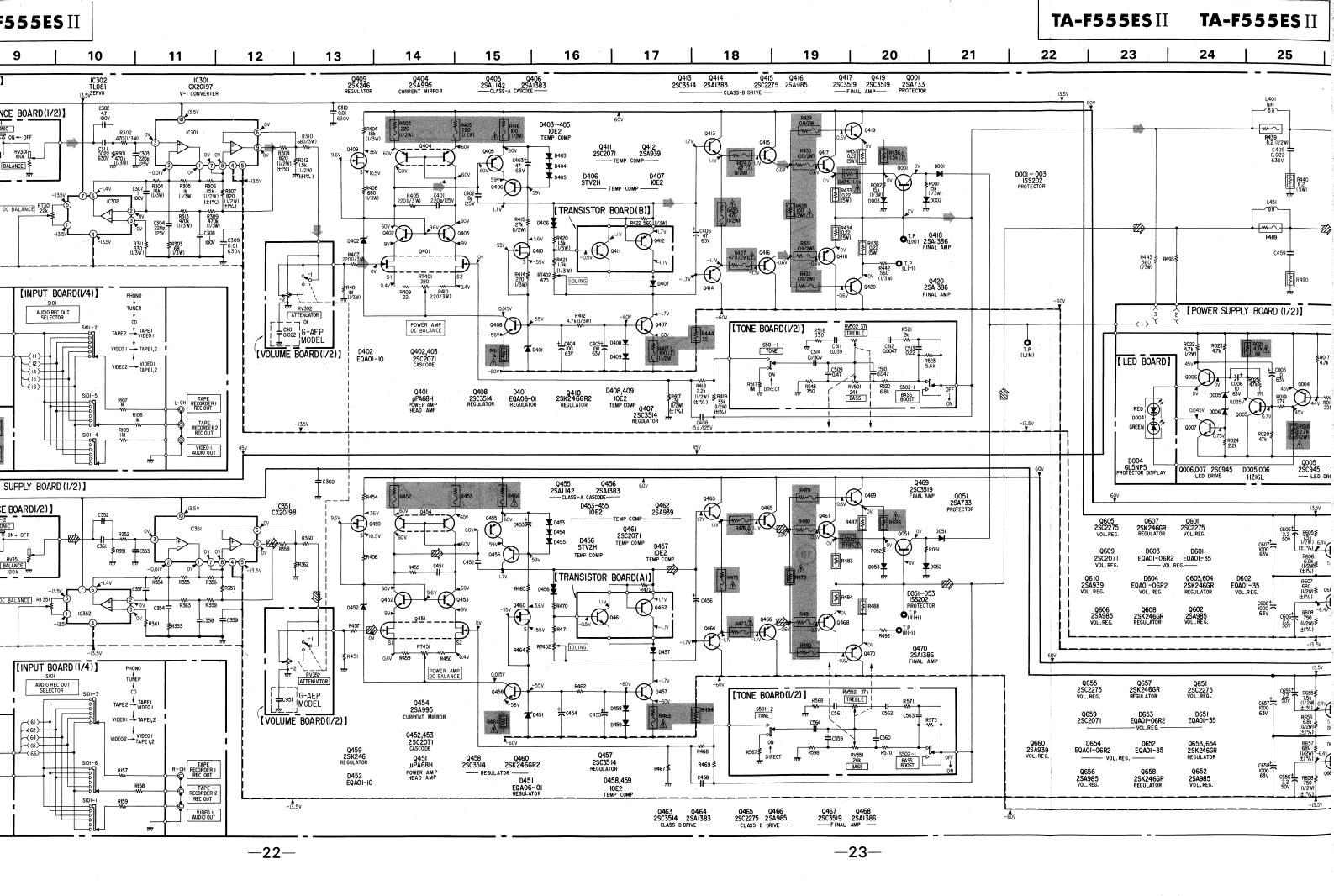


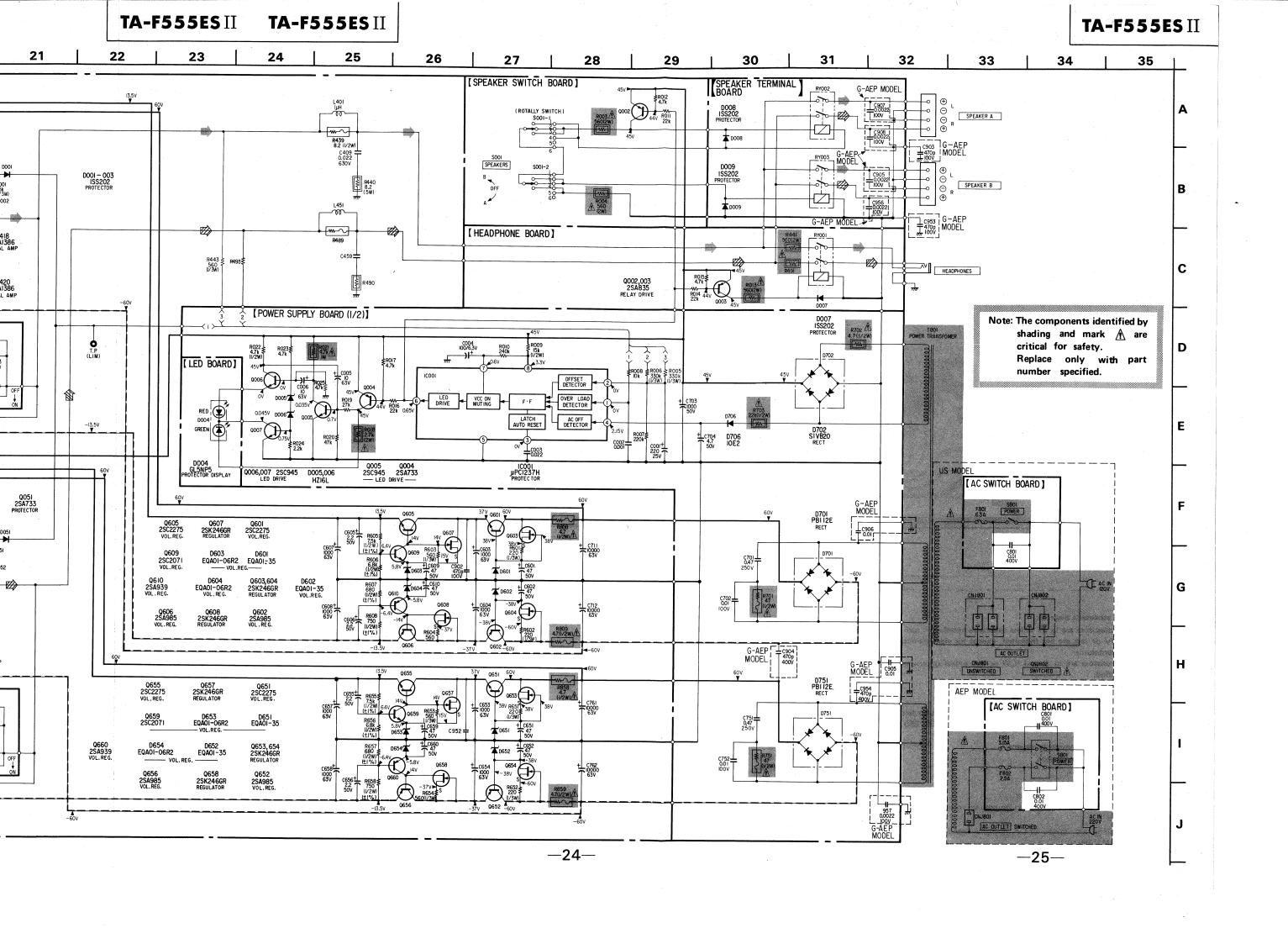


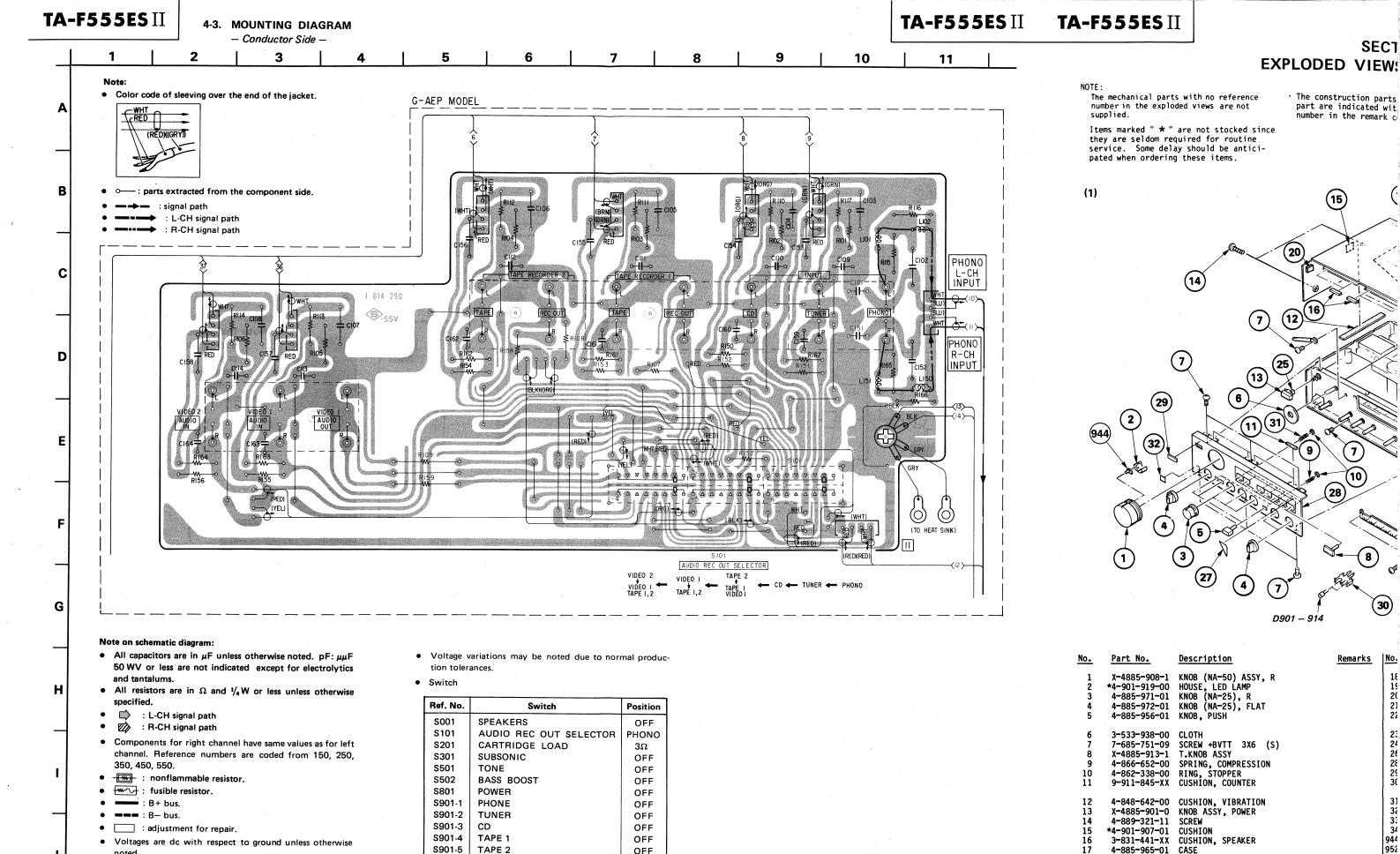












OFF

OFF

-27-

S901-6

S901-7

• Readings are taken under no-signal conditions with

**-26**-

a VOM (50k $\Omega$ /V).

VIDEO 1

VIDEO 2

TA-F555ES II TA-F555ES II

10 | 11

INPUT

PHONO

INPUT

(TO HEAT SINK)

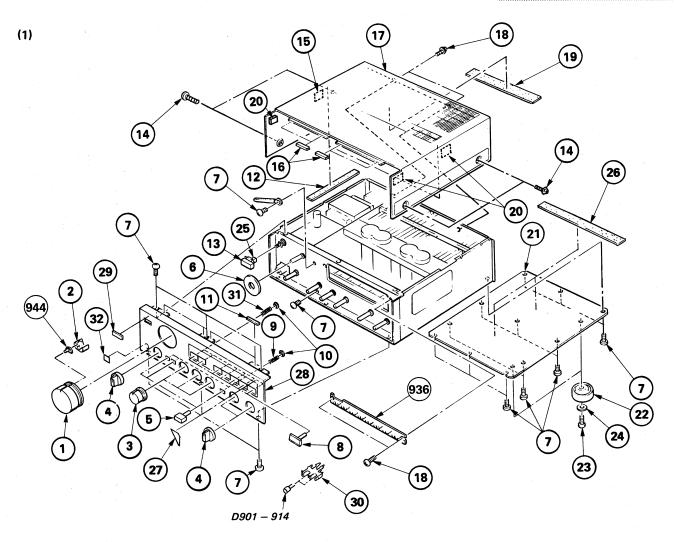
SECTION 5
EXPLODED VIEWS AND PARTS LIST

NOTE

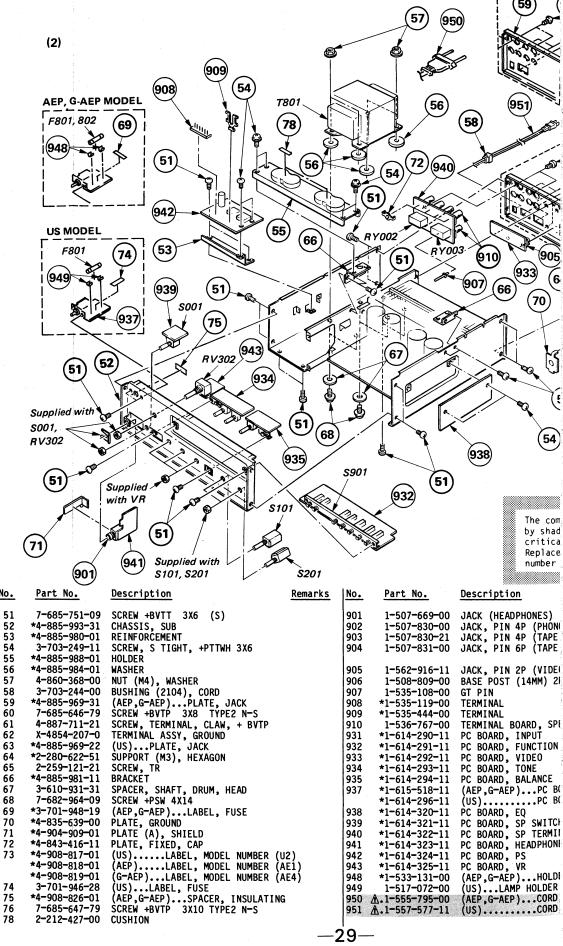
The mechanical parts with no reference number in the exploded views are not supplied.

Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.  The construction parts of an assembled part are indicated with a collation number in the remark column.

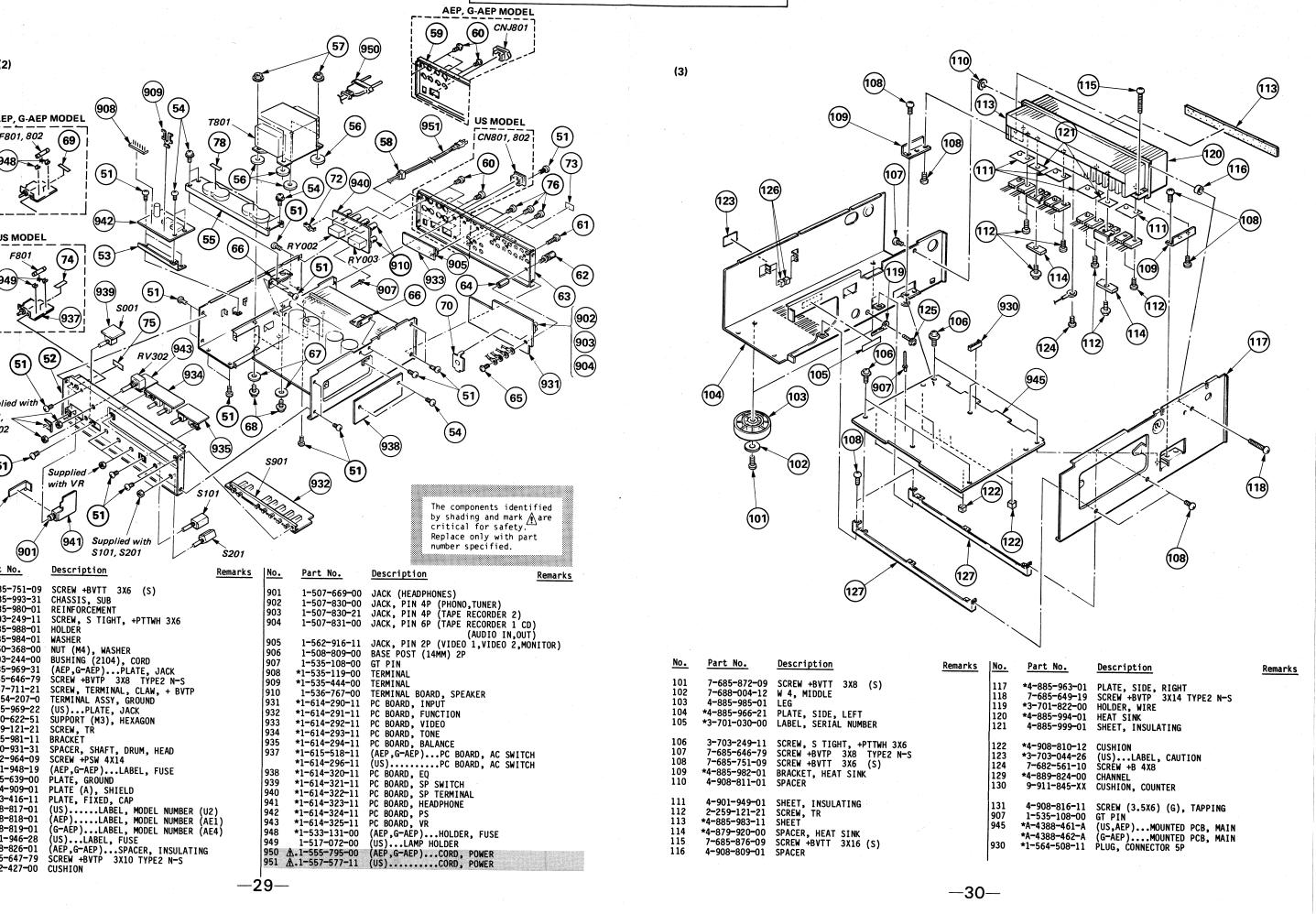
The components identified by shading and mark Aare critical for safety. Replace only with part number specified.

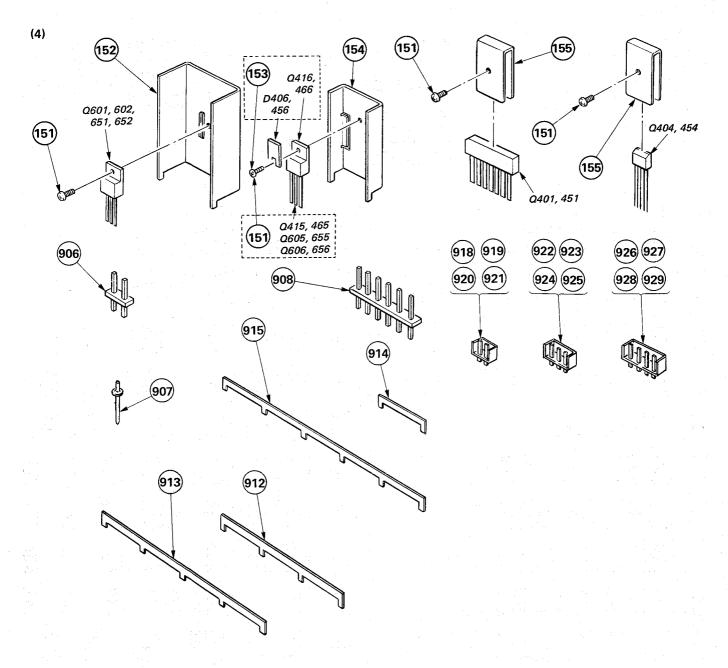


N	lo.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
	1 2 3 4 5	X-4885-908-1 *4-901-919-00 4-885-971-01 4-885-972-01 4-885-956-01	KNOB (NA-50) ASSY, R HOUSE, LED LAMP KNOB (NA-25), R KNOB (NA-25), FLAT KNOB, PUSH		18 19 20 21 22	3-703-249-11 *4-885-983-21 *4-901-907-11 *4-885-967-01 4-885-985-01	SHEET CUSHION	(
	6 7 8 9 10	3-533-938-00 7-685-751-09 X-4885-913-1 4-866-652-00 4-862-338-00 9-911-845-XX	CLOTH SCREW +BVTT 3X6 (S) T.KNOB ASSY SPRING, COMPRESSION RING, STOPPER CUSHION, COUNTER		23 24 26 28 29 30	7-685-872-09 7-688-004-12 *4-885-983-01 X-4885-914-3 3-304-974-01 *4-905-210-01		29
	12 13 14 15 16 17	4-848-642-00 X-4885-901-0 4-889-321-11 *4-901-907-01 3-831-441-XX 4-885-965-01	CUSHION, VIBRATION KNOB ASSY, POWER SCREW CUSHION CUSHION, SPEAKER CASE		31 32 33 34 944 952	2-267-020-00 3-703-710-41 4-889-813-00 4-866-342-00 *1-614-326-11 *1-614-295-11	STICKEÉ, SONY SYMBOL (12) STICKER (C) JOINT (B), KNOB PC BOARD, LED	



### TA-F555ESII TA-F555ESII





No.	Part No.	<u>Description</u> <u>Remarks</u>	No.	Part No.	<u>Description</u>		Rema	arks
151 152 153 154 155 906	2-259-121-00 *4-880-403-11 2-259-121-11 *3-309-144-01 *4-866-080-11 *1-508-809-00	SCREW, TR HEAT SINK SCREW, TR HEAT SINK HEAT SINK BASE POST (14MM) 2P	918 919 920 921 922 923		PLUG, CONNECTOR 2P (W PLUG, CONNECTOR 2P (BI PLUG, CONNECTOR 2P (RI PLUG, CONNECTOR 2P (YI PLUG, CONNECTOR 3P (WI PLUG, CONNECTOR 3P (BI	LACK) ED) ELLOW) HITE)		
907 908 912 913 914 915	1-535-108-00 *1-535-119-00 *1-560-242-21 *1-560-242-31 *1-560-242-61 *1-560-242-71	GT PIN TERMINAL BUS BAR 4P BUS BAR 5P BUS BAR 2P BUS BAR 6P	924 925 926 927 928 929	*1-564-506-31 *1-564-506-41 *1-564-507-11 *1-564-507-21 *1-564-507-31 *1-564-507-41	PLUG, CONNECTOR 3P (YI PLUG, CONNECTOR 4P (WI	HITE) LACK) ED)		

#### SECTION 6 **ELECTRICAL PARTS LIST**

#### NOTE:

- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuitsin a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF:μF, PF:μμF.

#### RESISTORS

- · All resistors are in ohms. · F : nonflammable

COILS · MMH : mH, UH : μH

#### SEMICONDUCTORS

In each case, U : μ, for example: UA...: μΑ..., UPA...: μΡΑ..., UPC...: μΡC, UPD...: μPD...

The components identified by shading and mark A are critical for safety.
Replace only with part number specified.

#### ELECTRICAL PARTS

	ELECIKIC	ML PARTS
Ref.No.	Part No.	<u>Description</u>
901 902 903	1-507-669-00 1-507-830-00 1-507-830-21	JACK (HEADPHONES) JACK, PIN 4P (PHONO,TUNER) JACK, PIN 4P (TAPE RECORDER 2)
904	1-507-831-00	JACK, PIN 6P (TAPE RECORDER 1 CD) (AUDIO IN,OUT)
905 906	1-562-916-11 *1-508-809-00	JACK, PIN 2P (VIDEO 1, VIDEO 2, MONITOR) BASE POST (14MM) 2P
907 908 909	1-535-108-00 *1-535-119-00 *1-535-444-00	GT PIN TERMINAL TERMINAL
910 911 912	1-536-767-00 *1-562-251-00 *1-560-242-21	TERMINAL BOARD, SPEAKER SOCKET, CONNECTOR 6P BUS BAR 4P
913 914 915	*1-560-242-31 *1-560-242-61 *1-560-242-71	BUS BAR 5P BUS BAR 2P BUS BAR 6P
916 917 918	*1-562-249-00 *1-562-327-00 *1-564-505-11	SOCKET, CONNECTOR 4P SOCKET, CONNECTOR 3P PLUG, CONNECTOR 2P (WIHTE)
919 920 921	*1-564-505-21 *1-564-505-31 *1-564-505-41	PLUG, CONNECTOR 2P (BLACK) PLUG, CONNECTOR 2P (RED) PLUG, CONNECTOR 2P (YELLOW)
922 923 924	*1-564-506-11 *1-564-506-21 *1-564-506-31	PLUG, CONNECTOR 3P (WHITE) PLUG, CONNECTOR 3P (BLACK) PLUG, CONNECTOR 3P (RED)
925 926 927	*1-564-506-41 *1-564-507-11 *1-564-507-21	PLUG, CONNECTOR 3P (YELLOW) PLUG, CONNECTOR 4P (WHITE) PLUG, CONNECTOR 4P (BLACK)
928 929 930	*1-564-507-31 *1-564-507-41 *1-564-508-11	PLUG, CONNECTOR 4P (RED) PLUG, CONNECTOR 4P (YELLOW) PLUG, CONNECTOR 5P
931 932 933	*1-614-290-11 *1-614-291-11 *1-614-292-11	PC BOARD, INPUT PC BOARD, FUNCTION PC BOARD, VIDEO
934 935 937	*1-614-293-11 *1-614-294-11 *1-615-518-11 *1-614-296-11	PC BOARD, TONE PC BOARD, BALANCE (AEP,G-AEP)PC BOARD, AC SWITCH (US)PC BOARD, AC SWITCH
938 939 940	*1-614-320-11 *1-614-321-11 *1-614-322-11	PC BOARD, SP SWITCH
941 942 943	*1-614-323-11 *1-614-324-11 *1-614-325-11	PC BOARD, HEADPHONE PC BOARD, PS PC BOARD, VR

\*1-614-326-11 PC BOARD, LED \*A-4388-461-A (US,AEP)...MOUNTED PCB, MAIN \*A-4388-462-A (G-AEP)...MOUNTED PCB, MAIN

944 945

#### **ELECTRICAL PARTS**

		<del></del>				
Ref.No.	Part No.	Description				
946 947 948	*1-535-115-00 1-535-416-00 *1-533-131-00	TERMINAL (AEP,G-AEP). (AEP,G-AEP).	TERMINAL HOLDER, FU	sE		
	1-517-072-00 A.1-555-795-00 A.1-557-577-11 *1-614-295-11	(US)LAMP (AEP,G-AEP). (US) PC BOARD, LEI	CORD, POWE CORD, POWE	R R		
C4	1-130-291-00	FILM	0.0056MF	10%	100V	
C001	1-123-334-00	ELECT	220MF	20%	25V	
C002	1-106-172-00	MYLAR	0.001MF	5%	50V	
C003	1-136-157-00	FILM	0.022MF	5%	50V	
C004	1-123-307-00	ELECT	100MF	20%	6.3V	
C005	1-123-518-00	ELECT	10MF	20%	63V	
C006	1-123-518-00	ELECT	10MF	20%	63V	50V
C101	1-107-294-00	MICA	56PF	5%	100V	
C102	1-161-317-00	(G-AEP)CE	RAMIC 330P	F	10%	
C103 C104 C105	1-161-317-00 1-161-317-00 1-161-317-00	(G-AEP)CE (G-AEP)CE (G-AEP)CE	RAMIC 330P	F	10% 5	50\ 50\ 50\
C106 C107 C108	1-161-317-00 1-161-317-00 1-161-317-00	(G-AEP)CE (G-AEP)CE (G-AEP)CE	RAMIC 330P	F	10% 5	50V 50V 50V
C109 C110 C111	1-102-112-00 1-102-112-00 1-102-112-00	(G-AEP)CE (G-AEP)CE (G-AEP)CE	RAMIC 330P	F	10% 5	50V 50V 50V
C112 C113 C114	1-102-112-00 1-102-112-00 1-102-112-00	(G-AEP)CE (G-AEP)CE (G-AEP)CE	RAMIC 330P	F	10% 5	50\ 50\ 50\
C201	1-104-249-11	POLYSTYRENE	330PF	5%	125V	
C202	1-104-151-00	POLYSTYRENE	0.0022MF	5%	125V	
C203	1-136-324-00	FILM	0.01MF	10%	630V	
C204	1-136-324-00	FILM	0.01MF	10%	630V	
C206	1-123-360-00	ELECT	100MF	20%	50V	
C207	1-136-248-00	FILM	0.056MF	3%	100V	
C208	1-136-247-00	FILM	0.016MF	3%	100V	
C209	1-124-334-00	ELECT	4.7MF	20%	100V	
C211	1-104-151-00	POLYSTYRENE	0.0022MF	5%	125V	
C301	1-136-165-00	FILM	0.1MF	5%	50V	
C302	1-124-334-00	ELECT	4.7MF	20%	100V	
C303	1-104-233-00	POLYSTYRENE	220PF	5%	125V	
C304	1-104-233-00	POLYSTYRENE	220PF	5%	125V	
C307	1-124-611-51	ELECT	1MF	20%	100V	
C308	1-124-611-51	ELECT	1MF	20%	100V	
C309	1-136-324-00	FILM	0.01MF	10%	630V	
C310	1-136-324-00	FILM	0.01MF	10%	630V	
C311	1-129-718-00	FILM	0.022MF	10%	630V	

	PARTS

Ref.No.	Part No.	<u>Description</u>			
C401	1-104-261-00	POLYSTYRENE	220PF	10%	125V
C402	1-104-262-00	POLYSTYRENE	10PF	10%	125V
C403	1-123-373-00	ELECT	47MF	20%	63V
C404	1-123-374-00	ELECT	100MF	20%	63V
C405	1-123-374-00	ELECT	100MF	20%	63V
C406	1-123-373-00	ELECT	47MF	20%	63V
C408	1-104-263-00	POLYSTYRENE	15PF	10%	125V
C409	1-136-325-00	FILM	0.022MF	10%	630V
C509	1-136-173-00	FILM	0.47MF	5%	50V
C510	1-136-161-00	FILM	0.047MF	5%	50V
C511	1-136-160-00	FILM	0.039MF	5%	50V
C512	1-106-188-00	MYLAR	0.0047MF	10%	50V
C513	1-136-169-00	FILM	0.22MF	5%	50V
C514	1-124-186-00	ELECT	10MF	20%	50V
C601	1-123-359-00	ELECT	47MF	20%	50V
C602	1-123-359-00	ELECT	47MF	20%	50V
C603	1-123-378-00	ELECT	1000MF	20%	63V
C604	1-123-378-00	ELECT	1000MF	20%	63V
C605	1-124-718-51	ELECT	2.2MF	20%	50V
C606	1-124-718-51	ELECT	2.2MF	20%	50V
C607	1-123-378-00	ELECT	1000MF	20%	63V
C608	1-123-378-00	ELECT	1000MF	20%	63V
C609	1-124-724-51	ELECT	47MF	20%	50V
C610	1-124-724-51	ELECT	47MF	20%	50V
C651	1-123-359-00	ELECT	47MF	20%	50V
C652	1-123-359-00	ELECT	47MF	20%	50V
C653	1-123-378-00	ELECT	1000MF	20%	63V
C654	1-123-378-00	ELECT	1000MF	20%	63V
C655	1-124-718-51	ELECT	2.2MF	20%	50V
C656	1-124-718-51	ELECT	2.2MF	20%	50V
C657	1-123-378-00	ELECT	1000MF	20%	63V
C658	1-123-378-00	ELECT	1000MF	20%	63V
C659	1-124-724-51	ELECT	47MF	20%	50V
C660	1-124-724-51	ELECT	47MF	20%	50V
C701	1-130-796-00	FILM	0.47MF	5%	250V
C702	1-130-297-00	FILM	0.01MF	10%	100V
C703	1-123-364-00	ELECT	1000MF	20%	50V
C704	1-123-369-00	ELECT	4.7MF	20%	50V
C711	1-125-382-11	ELECT	10000MF	20%	63V
C712	1-125-382-11	ELECT	10000MF	20%	63V
C751	1-130-796-00	FILM	0.47MF	5%	250V
C752	1-130-297-00	FILM	0.01MF	10%	100V
C761 C762 C801	1-125-382-11 1-125-382-11 1-161-744-00	ELECT ELECT CERAMIC	10000MF 10000MF 0.01MF	20% 20%	63V 63V 400V
C802 C901 C902	1-161-744-00 1-161-494-00 1-161-740-12	(AEP,G-AEP). (G-AEP)CE (G-AEP)MI	RAMIC 0.022		400V 25V 100V
C903 C904 C905	1-161-740-12 1-161-740-00 1-161-744-00	(G-AEP)MI (G-AEP)CE (G-AEP)CE	RAMIC 470PF	10%	100V 400V 400V
C906 C907 C908 C951	1-161-744-00 1-130-281-00 1-130-281-00 1-161-494-00	(G-AEP)FI (G-AEP)FI FILM CERAMIC		2MF 5%	400V 100V 100V 25V

The components identified by shading and mark Aare critical for safety.
Replace only with part number specified.

#### ELECTRICAL PARTS

	***************************************	
Ref.No.	Part No.	Description
C952	1-161-740-12	(G-AEP)MICA 470PF 5% 100V
C953	1-161-740-12	(G-AEP)MICA 470PF 5% 100V
C954	1-161-740-00	(G-AEP)CERAMIC 470PF 10% 400V
C955	1-130-281-00	FILM 0.0022MF 5% 100V
C956	1-130-281-00	FILM 0.0022MF 5% 100V
C957	1-130-281-00	(G-AEP)FILM 0.0022MF 5% 100V
	.1-526-794-11 .1-526-883-00	(AEP,G-AEP)OUTLET, AC (US)OUTLET, AC
<u> </u>	.1-526-883-00	(US)OUTLET, AC
D001 D002 D003	8-719-107-94 8-719-107-94 8-719-107-94	DIODE 1SS202-1 DIODE 1SS202-1 DIODE 1SS202-1
D004 D005 D006	8-719-918-47 8-719-910-01 8-719-910-01	DIODE GL-5NP5 DIODE HZ20-1 DIODE HZ20-1
D007	8-719-107-94	DIODE 1SS202-1
D008	8-719-107-94	DIODE 1SS202-1
D009	8-719-107-94	DIODE 1SS202-1
D010	8-719-107-94	DIODE 1SS202-1
D051	8-719-107-94	DIODE 1SS202-1
D052	8-719-107-94	DIODE 1SS202-1
D053 D401 D402	8-719-107-94 8-719-902-97 8-719-100-57	DIODE 1SS202-1 DIODE EQAO1-06R2 DIODE RD10E-B2
D403	8-719-200-02	DIODE 10E-2
D404	8-719-200-02	DIODE 10E-2
D405	8-719-200-02	DIODE 10E-2
D406	8-719-300-28	DIODE STV-2H
D407	8-719-200-02	DIODE 10E-2
D408	8-719-200-02	DIODE 10E-2
D409	8-719-200-02	DIODE 10E-2
D451	8-719-902-97	DIODE EQA01-06R2
D452	8-719-100-57	DIODE RD10E-B2
D453	8-719-200-02	DIODE 10E-2
D454	8-719-200-02	DIODE 10E-2
D455	8-719-200-02	DIODE 10E-2
D456 D457 D458	8-719-300-28 8-719-200-02 8-719-200-02	DIODE STV-2H DIODE 10E-2 DIODE 10E-2
D459	8-719-200-02	DIODE 10E-2
D451	8-719-902-97	DIODE EQA01-06R2
D452	8-719-100-57	DIODE RD10E-B2
D601 D602 D603	8-719-931-35 8-719-931-35 8-719-902-97	DIODE EQA01-35 DIODE EQA01-35 DIODE EQA01-06R2
D604	8-719-902-97	DIODE EQA01-06R2
D651	8-719-931-35	DIODE EQA01-35
D652	8-719-931-35	DIODE EQA01-35
D653	8-719-902-97	DIODE EQAO1-06R2
D654	8-719-902-97	DIODE EQAO1-06R2
D701	8-719-200-43	DIODE PB112E
D702 D703 D707	8-719-511-20 8-719-200-02 8-719-931-06	DIODE S1YB20 DIODE 10E-2 DIODE EQB01-06
D751	8-719-200-43	DIODE PB112E
D901	8-719-918-57	DIODE GL-5NG27
D902	8-719-918-57	DIODE GL-5NG27

#### ELECTRICAL PARTS

Ref.No.	Part No.	Description
D903	8-719-918-57	DIODE GL-5NG27
D904	8-719-918-57	DIODE GL-5NG27
D905	8-719-918-57	DIODE GL-5NG27
D906	8-719-918-57	DIODE GL-5NG27
D907	8-719-918-57	DIODE GL-5NG27
D908	8-719-918-57	DIODE GL-5NG27
D909	8-719-918-57	DIODE GL-5NG27
D910	8-719-918-57	DIODE GL-5NG27
D911	8-719-918-57	DIODE GL-5NG27
D912	8-719-918-57	DIODE GL-5NG27
D913	8-719-918-57	DIODE GL-5NG27
D914	8-719-918-57	DIODE GL-5NG27
	.1-532-237-00 .1-532-509-00	(AEP,G-AEP)FUSE, TIME-LAG (US)FUSE, GLASS TUBE 6.3A
F802 <u>A</u>	.1-532-286-00	(AEP,G-AEP)FUSE, TIME-LAG
IC001	8-759-101-23	IC UPC1237H
IC201	8-759-905-42	IC NE5534P
IC251	8-759-905-42	IC NE5534P
IC301 IC302 IC351 IC352	8-759-801-74 8-759-981-00 8-759-801-74 8-759-981-00	IC CX20198 IC TL081CP IC CX20198 IC TL081CP
L101	1-413-101-00	COIL, INPUT
L102	1-413-101-00	COIL, INPUT
L151	1-413-101-00	COIL, INPUT
	1-413-101-00 *1-422-031-00 *1-422-031-00	COIL, INPUT COIL, AIRCORE COIL, AIRCORE
Q001	8-729-173-37	TRANSISTOR 2SA733-P
Q002	8-762-020-00	TRANSISTOR 2SA835
Q003	8-762-020-00	TRANSISTOR 2SA835
Q004 Q005 Q006	8-729-173-37 8-729-194-57 8-729-194-57	TRANSISTOR 2SA733-P TRANSISTOR 2SC945-P TRANSISTOR 2SC945-P
Q007	8-729-194-57	TRANSISTOR 2SC945-P
Q051	8-729-173-37	TRANSISTOR 2SA733-P
Q201	8-729-201-28	TRANSISTOR 2SK146-BL
Q202 Q203 Q204	8-729-168-22 8-729-194-57 8-729-224-62	TRANSISTOR 2SC2682 TRANSISTOR 2SC945-P TRANSISTOR 2SK246-GR
Q251	8-729-201-28	TRANSISTOR 2SK146-BL
Q252	8-729-168-22	TRANSISTOR 2SC2682
Q253	8-729-194-57	TRANSISTOR 2SC945-P
0254	8-729-224-62	TRANSISTOR 2SK246-GR
0401	8-729-103-66	TRANSISTOR UPA68H-M
0402	8-729-907-11	TRANSISTOR 2SC2071
Q403	8-729-907-11	TRANSISTOR 2SC2071
Q404	8-729-699-51	TRANSISTOR 2SA995
Q405	8-729-114-22	TRANSISTOR 2SA1142
Q407	8-729-104-91 8-729-104-18 8-729-104-18	TRANSISTOR 2SA1383-Q TRANSISTOR 2SA3514-Q TRANSISTOR 2SA3514-Q
Q410	8-729-201-56 8-729-201-56 8-729-907-11	TRANSISTOR 2SK246-GR2 TRANSISTOR 2SK246-GR2 TRANSISTOR 2SC2071

The components identified by shading and mark Aare critical for safety.
Replace only with part number specified.

#### ELECTRICAL PARTS

		ELECTRI	CAL PARTS			
	Ref.No.	Part No.	Descriptio	<u>n</u>		
	Q412 Q413 Q414	8-729-993-92 8-729-104-18 8-729-104-91	TRANSISTOR	2SA939 2SA3514-Q 2SA1383-Q	21 1	
	Q415 Q416 Q417	8-729-127-53 8-729-118-53 8-729-301-82	TRANSISTOR			4 4 2
	Q418 Q419 Q420	8-729-301-86 8-729-301-82 8-729-301-86	TRANSISTOR			
	0451 0452 0453	8-729-103-66 8-729-907-11 8-729-907-11	TRANSISTOR TRANSISTOR TRANSISTOR	2SC2071		
	Q454 Q455 Q456	8-729-699-51 8-729-114-22 8-729-104-91	TRANSISTOR TRANSISTOR TRANSISTOR	2SA1142		
	Q457 Q458 Q459	8-729-104-18 8-729-104-18 8-729-201-56	TRANSISTOR TRANSISTOR TRANSISTOR			
	Q460 Q461 Q462	8-729-201-56 8-729-907-11 8-729-993-92	TRANSISTOR TRANSISTOR TRANSISTOR			
	Q463 Q464 Q465	8-729-104-18 8-729-104-91 8-729-127-53	TRANSISTOR TRANSISTOR TRANSISTOR	2SA1383-Q		
	Q466 Q467 Q468	8-729-118-53 8-729-301-82 8-729-301-86	TRANSISTOR TRANSISTOR TRANSISTOR	2SC3519-Y		
	Q469 Q470 Q601	8-729-301-82 8-729-301-86 8-729-127-53	TRANSISTOR TRANSISTOR TRANSISTOR	2SA1386-Y		
	Q602 Q603 Q604	8-729-118-53 8-729-224-62 8-729-224-62	TRANSISTOR TRANSISTOR TRANSISTOR	2SK246-GR		
	Q605 Q606 Q607	8-729-127-53 8-729-118-53 8-729-201-56	TRANSISTOR TRANSISTOR TRANSISTOR	2SA985-P		
	Q608 Q609 Q610	8-729-201-56 8-729-907-11 8-729-993-92	TRANSISTOR TRANSISTOR TRANSISTOR	2SC2071		
	Q651 Q652 Q653	8-729-127-53 8-729-118-53 8-729-224-62	TRANSISTOR TRANSISTOR TRANSISTOR	2SA985-P		
	Q654 Q655 Q656	8-729-224-62 8-729-127-53 8-729-118-53	TRANSISTOR TRANSISTOR TRANSISTOR	2SC2275-P		
	*	8-729-201-56 8-729-201-56 8-729-907-11 8-729-993-92	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR	2SK246-GR 2SC2071		
10000	R001 R002 R003 <u></u> ↑.	1-247-268-00 1-247-268-00 1-206-658-00	CARBON CARBON METAL OXIDE	15K 5% 15K 5% 560 5%	1/3W 1/3W	
	R005	1-206-658-00 1-244-933-00 1-244-933-00	METAL OXIDE CARBON CARBON	560 5% 330K 5% 330K 5%	1/3W	F
	R008	1-246-529-00 1-247-155-00 1-247-268-00	CARBON CARBON CARBON	220K 5% 10K 5% 15K 5%	1/4W 1/4W 1/2W	

#### ELECTRICAL PARTS

#### ELECTRICAL PARTS

Ref.No.	Part No.	Description					Re	ef.No.	<u>Part</u>	No.	Description				
R010 R011 R012	1-246-530-00 1-247-163-00 1-247-147-00	CARBON CARBON CARBON	240K 22K 4.7K	5% 5% 5%	1/4W 1/4W 1/4W			R305 R306 R307	1-21	7-240-00 4-868-00 4-862-00	CARBON METAL METAL	1K 1.5K 820	5% 1% 1%	1/3W 1/2W 1/2W	· ·
R013 A R014 R015	.1-206-658-00 1-247-163-00 1-247-147-00	METAL OXIDE CARBON CARBON	560 22K 4.7K	5% 5% 5%	2W 1/4W 1/4W			R308 R309 R310	1-24	4-862-00 4-937-00 7-212-00	METAL CARBON CARBON	820 470K 68	1% 5% 5%	1/2W 1/3W 1/3W	
R016 R017 R018 A	1-247-163-00 1-247-147-00 .1-206-674-00	CARBON CARBON METAL OXIDE	22K 4.7K 2.7K	5% 5% 5%	1/4W 1/4W 2W			R311 R312 R313	1-21	7-228-00 4-868-00 4-937-00	CARBON METAL CARBON	330 1.5K 470K	5% 1% 5%	1/3W 1/2W 1/3W	
R019 R020 R021 <u>A</u>	1-247-165-00 1-247-171-00 .1-213-151-11	CARBON CARBON METAL OXIDE	27K 47K 4.7K	5% 5% 5%	1/4W 1/4W 1W			R402 ⚠.	. 1–21	4-945-00 2-990-00 2-990-00	CARBON FUSIBLE FUSIBLE	1M 220 220	5% 5% 5%	1/3W 1/2W 1/2W	
R022 R023 R024	1-247-256-00 1-247-147-00 1-247-717-11	CARBON CARBON CARBON	4.7K 4.7K 2.2K	5% 5% 5%	1/2W 1/4W 1/4W			R404 R405 R406	1-24	7-270-00 7-224-00 7-236-00	CARBON CARBON CARBON	18K 220 680	5% 5% 5%	1/3W 1/3W 1/3W	
R025 R101 R102	1-247-147-00 1-246-545-00 1-246-545-00	CARBON CARBON CARBON	4.7K 1M 1M	5% 5% 5%	1/4W 1/4W 1/4W			R407 R409 R410	1-24	7-224-00 7-200-00 7-200-00	CARBON CARBON CARBON	220 22 22	5% 5% 5%	1/3W 1/3W 1/3W	
R103 R104 R105	1-246-545-00 1-246-545-00 1-246-545-00	CARBON CARBON CARBON	1M 1M 1M	5% 5% 5%	1/4W 1/4W 1/4W			R412	1-24	7-131-00 7-256-00 7-446-00	CARBON CARBON FUSIBLE	1K 4.7K 100	5% 5% 5%	1/3W	
R106 R107 R108	1-246-545-00 1-247-131-00 1-247-131-00	CARBON CARBON CARBON	1M 1K 1K	5% 5% 5%	1/4W 1/4W 1/4W		51.51 51.51 51.51	R414 R415 R416 <u>A</u>	1-24	7-224-00 7-274-00 7-446-00	CARBON CARBON FUSIBLE	220 27K 100	5% 5% 5%	1/3W 1/2W 1/2W	Financia
R109 R110 R111	1-247-131-00 1-247-123-00 1-247-123-00	CARBON (G-AEP)CAR (G-AEP)CAR		5% 470 470	1/4W 5% 5%	1/4W 1/4W		R417 R418 R419	1-21	4-867-00 4-872-00 4-901-00	METAL METAL METAL	1.3K 2.2K 33K	1% 1% 1%	1/2W 1/2W 1/2W	
R112 R113 R114	1-247-123-00 1-247-123-00 1-247-123-00	(G-AEP)CAR (G-AEP)CAR (G-AEP)CAR	BON	470 470 470	5% 5% 5%	1/4W 1/4W 1/4W		R420 R421 R422	1-24	17-244-00 17-243-00 17-234-00	CARBON CARBON CARBON	1.5K 1.3K 560	5% 5% 5%	1/3W 1/3W 1/3W	
R115 R116 R117	1-247-119-00 1-247-119-00 1-247-123-00	(G-AEP)CAR (G-AEP)CAR (G-AEP)CAR	BON	330 330 470	5% 5% 5%	1/4W 1/4W 1/4W		R426 🛦	. 1–21	7-454-00 2-974-00 2-974-00	FUSIBLE FUSIBLE FUSIBLE	470 47 47	5% 5% 5%	1/2W	F.
R201 R202 R203	1-247-280-00 1-247-228-00 1-247-216-00	CARBON CARBON CARBON	47K 330 100	5% 5% 5%	1/3W 1/3W 1/3W			R429 🛣	. 1–21	06-640-00 7-434-00 7-434-00	METAL OXIDE FUSIBLE FUSIBLE	100 10 10	5% 5% 5%	2W 1/2W 1/2W	
R204 R205 R206	1-249-176-51 1-249-207-51 1-249-207-51	CARBON CARBON CARBON	39 750 750	5% 5% 5%	1/3W 1/3W 1/3W				. 1–21	.7-434-00 .7-434-00 .5-647-00	FUSIBLE FUSIBLE CEMENTED	10 10 0.22	5% 5%	1/2W 1/2W 5W	
R208 R209 R210	1-249-185-51 1-247-228-00 1-249-176-51	CARBON CARBON CARBON	91 330 39	5% 5% 5%	1/3W 1/3W 1/3W				.1-24	05-647-00 17-135-00 17-135-00	CEMENTED CARBON CARBON	0.22 1.5K 1.5K	5% 5% 5%	5W 1/4W 1/4W	
R211 R212 R213	1-247-224-00 1-249-298-11 1-247-216-00	CARBON CARBON CARBON	220 4.7M 100	5% 5% 5%	1/3W 1/3W 1/3W			R437 R438 R439	1-20	05-647-00 05-647-00 17-433-00	CEMENTED CEMENTED FUSIBLE.	0.22 0.22 8.2	5% 5% 5%	5W 5W 1/2W	F
R214 R215 R216	1-214-907-00 1-214-880-00 1-214-840-00	METAL METAL METAL	56K 4.7K 100	1% 1% 1%	1/2W 1/2W 1/2W		#112.00   1112.00   28.00	R440 R441 <u>A</u> R442	.1-20	17-582-00 06-658-00 17-234-00	CEMENTED METAL OXIDE CARBON	8.2 560 560	10% 5% 5%	5W 2W 1/3W	Frankling.
R217 R218 R301	1-214-812-00 1-247-224-00 1-244-937-00	METAL CARBON CARBON	6.8 220 470K	1% 5% 5%	1/2W 1/3W 1/3W				.1-21	17-234-00 12-865-11 12-990-00	CARBON FUSIBLE FUSIBLE	560 22 220	5% 5% 5%	1/3W 1/2W 1/2W	
R302 R303 R304	1-247-232-00 1-247-212-00 1-247-264-00	CARBON CARBON CARBON	470 68 10K	5% 5% 5%	1/3W 1/3W 1/3W			R461 🕭	.1-24	12-990-00 17-131-00 17-446-00	FUSIBLE CARBON FUSIBLE	220 1K 100	5% 5% 5%	1/2W 1/4W 1/2W	F
	e components in shading and m						504	R475 <u>/</u> A R476 <u>/</u> A	. 1-2] . 1-2]	.7-446-00 .7-454-00 .2-974-00 .2-974-00	FUSIBLE FUSIBLE FUSIBLE FUSIBLE	100 470 47 47 47	5% 5% 5%	1/2W 1/2W 1/2W 1/2W	F

The components identified by shading and mark A are critical for safety.

Replace only with part number specified.

#### ELECTRICAL PARTS

Ref.No.	Part No.	Description			·
R479 <u>Å</u> R480 <u>Å</u>	.1-206-640-00 .1-217-434-00 .1-217-434-00 .1-217-434-00	METAL OXIDE FUSIBLE FUSIBLE FUSIBLE	100 10 10 10	5% 5% 5%	2W F 1/2W F 1/2W F 1/2W F
R485 🕂	.1-217-434-00	FUSIBLE	10	5%	1/2W F
	.1-247-135-00	CARBON	1.5K	5%	1/4W F
	.1-247-135-00	CARBON	1.5K	5%	1/4W F
	1-217-433-00	FUSIBLE	8.2	5%	1/2W F
	.1-206-658-00	METAL OXIDE	560	5%	2W F
	.1-212-865-11	FUSIBLE	22	5%	1/2W F
R517	1-246-545-00	CARBON	1M	5%	1/4W
R518	1-247-119-00	CARBON	330	5%	1/4W
R520	1-247-151-00	CARBON	6.8K	5%	1/4W
R521	1-247-138-00	CARBON	2K	5%	1/4W
R523	1-247-149-00	CARBON	5.6K	5%	1/4W
R548	1-247-128-00	CARBON	750	5%	1/4W
R601	1-247-224-00	CARBON	220	5%	1/3W
R602	1-247-224-00	CARBON	220	5%	1/3W
R603	1-247-234-00	CARBON	560	5%	1/3W
R604	1-247-234-00	CARBON	560	5%	1/3W
R605	1-214-885-00	METAL	7.5K	1%	1/2W
R606	1-214-884-00	METAL	6.8K	1%	1/2W
R607	1-214-860-00	METAL	680	1%	1/2W
R608	1-214-861-00	METAL	750	1%	1/2W
R651	1-247-224-00	CARBON	220	5%	1/3W
R652	1-247-224-00	CARBON	220	5%	1/3W
R653	1-247-234-00	CARBON	560	5%	1/3W
R654	1-247-234-00	CARBON	560	5%	1/3W
R655	1-214-885-00	METAL	7.5K	1%	1/2W
R656	1-214-884-00	METAL	6.8K	1%	1/2W
R657	1-214-860-00	METAL	680	1%	1/2W
	1-214-861-00	METAL	750	1%	1/2W
	.1-212-974-00	FUSIBLE	47	5%	1/2W F
	.1-247-188-00	CARBON	4.7	5%	1/2W F
R704 🛧	.1-247-272-00	CARBON	22K	5%	1/2W F
	.1-206-661-11	METAL OXIDE	750	5%	2W F
	.1-206-661-11	METAL OXIDE	750	5%	2W F
R707 <u></u> ₹	.1-206-660-00	METAL OXIDE	680	5%	2W F
	.1-206-656-00	METAL OXIDE	470	5%	2W F
	.1-212-974-00	FUSIBLE	47	5%	1/2W F
- R809 <u>A</u> R858 <u>A</u>	.1-212-950-00 .1-212-950-00 .1-212-950-00 .1-212-950-00	FUSIBLE FUSIBLE FUSIBLE FUSIBLE	4.7 4.7 4.7 4.7 4.7	5% 5% 5% 5%	1/2W F 1/2W F 1/2W F 1/2W F
RT301 RT351 RT401	1-224-253-XX 1-224-253-XX 1-224-550-21	RES, ADJ, SOL RES, ADJ, SOL RES, ADJ, MET	ID 22K		
RT402 RT451 RT452	1-224-248-XX 1-224-550-21 1-224-248-XX	RES, ADJ, SOL RES, ADJ, MET RES, ADJ, SOL	AL GLA	ZE 220	
RV301 RV302 RV351	1-230-654-11 1-230-657-11 1-230-654-11	RES, VAR, CAR RES, VAR, CAR RES, VAR, CAR	BON 10	K/10K	(ATTENUATOR)
RV352 RV501 RV502	1-230-657-11 1-230-655-11 1-230-656-11	RES, VAR, CAR RES, VAR, CAR RES, VAR, CAR	BON 24	K/24K	(BASS)

#### ELECTRICAL PARTS

Ref.No.	Part No.	Description
RV551 RV552		RES, VAR, CARBON 24K/24K (BASS) RES, VAR, CARBON 37K/37K (TREBLE)
RY001 RY002 RY003 RY004		RELAY RELAY RELAY RELAY
S001 S101	1-570-093-11 1-570-081-11	SWITCH, ROTARY (SPEAKERS) SWITCH, ROTARY SLIDE (AUDIO REC OUT SELECTOR)
\$201	1-570-082-11	(CARTRIDGE LOAD)
S301	1-570-078-11	SWITCH, PUSH (1 KEY)(SUBSONIC)
S501 S502	1-570-079-11 1-570-079-11	SWITCH, PUSH (2 KEY)(TONE) SWITCH, PUSH (2 KEY)(BASS BOOST)
	1-554-880-11 1-552-246-12	SWITCH, PUSH (AC POWER)(1 KEY)(POWER) (US)SWITCH, PUSH (POWER)
\$901	1-570-075-11	SWITCH, PUSH (7 KEY) (VIDEO 1,2/TAPE 1,2/CD/TUNER/PHONO)
	\.1-448-189-11 \.1-448-190-11	(US)TRANSFORMER, POWER (AEP,G-AEP)TRANSFORMER, POWER

#### ACCESSORY & PACKING MATERIAL

Part No.	<u>Description</u>
2-297-403-00	SHEET (LARGE), PROTECTION
3-701-630-00	BAG, POLYETHYLENE
3-760-469-11	MANUAL, INSTRUCTION
4-885-949-01	CUSHION (FRONT), UPPER
4-885-950-01	CUSHION (REAR), UPPER
4-885-951-01	CUSHION (FRONT), LOWER
4-885-952-01 4-908-814-01	CUSHION (REAR), LOWER INDIVIDUAL CARTON

The components identified by shading and mark Aare critical for safety.
Replace only with part number specified.